

Claims

1. A method to recover one or more desired cells from a tissue sample, which method comprises separating one or more living cells, contained in the sample, that produce a first fluorescent protein
from cells contained in the sample that do not produce said first fluorescent protein,
thereby recovering one or more living cells that produce said first fluorescent protein.
2. The method of claim 1, wherein the cells that produce the first fluorescent protein are tumor cells.
3. The method of claim 1, wherein said separating is by surgical procedures.
4. The method of claim 1, wherein said separating is by fluorescent cell sorting.
5. The method of claim 2, wherein the tumor cells are metastatic tumor cells of the lung, bone, lymph node or liver.
6. The method of claim 1, wherein the first fluorescent protein is a green fluorescent protein or a red fluorescent protein.
7. The method of claim 1, wherein said one or more living cells recovered consists of a single living cell.
8. The method of claim 1, wherein said cells that produce said first fluorescent protein are present in an immunocompromised laboratory animal.
9. The method of claim 8, which further comprises identifying said cells that produce the first fluorescent protein by monitoring fluorescence and transferring portions of said cells to additional immunocompromised animals.
10. The method of claim 1, which further comprises subjecting the recovered one or more living cells that produce said first fluorescent protein to gene expression analysis.

11. The method of claim 1, wherein said cells contained in the sample that do not produce the first fluorescent protein produce a second fluorescent protein that emits a different wavelength from the first fluorescent protein.